

# Bernard Joshua Raja Rajan

Data Science Student

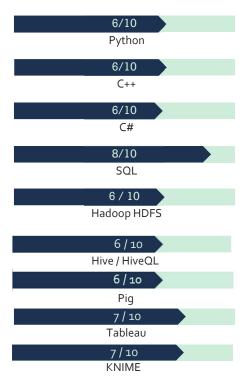


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# ABOUT ME

Complex problem-solver with analytical and driven mindset. Dedicated to achieving demanding development objectives according to tight schedules while producing good code. Looking for an internship for at least 3 months beginning on the 1<sup>st</sup> of March or April until May or June.

# SKILLS



# EXPERIENCE

## Project Team Lead (U-Mobile Final Year Project)

Swinburne University of Technology / Subang Jaya / Mar 2022 – Nov 2022

Acted as the team leader and backend developer of the project, which was to create a cryptocurrency prediction software with TensorFlow.

- Adaptable and proficient in learning new concepts quickly and efficiently.
- Applied effective time management techniques to meet tight project deadlines.
- Communicated project expectations to team members and stakeholders to set a tone for high productivity level.
- Developed and managed comprehensive project plans and associated, project documents to keep ongoing development on schedule.
- Built flow charts and project plans, informing clients on available services while proposing viable paths towards accomplishing objectives.
- Defined project scopes, goals and deliverables that supported company objectives in collaboration with management and stakeholders.
- Monitored project progress, identified risks, and took corrective action as needed.

#### Microsoft Student Learn Ambassador

Microsoft Student Programs / Global / January 2022 - Current

Learn Student Ambassadors are a global group of campus leaders who are eager to help fellow students, create robust tech communities and develop technical and career skills for the future.

- Upskill fellow students on the latest cloud technologies.
- Supervised work of fellow ambassadors by, assigning them tasks and monitoring performance against targets.
- Project management skills from facilitating workshops and talks.
- Translated technical concepts and information into terms parties could easily comprehend.

# EDUCATION

# Bachelor of Computer Science, Majoring in Data Science

Swinburne University of Technology 2020 – 2023 CGPA 3.81

#### Australian Matriculation (Commerce)

Methodist College Kuala Lumpur 2019 – 2019 Distinction 77.7%

# AWARDS

#### Excellence Award (Feb 2021)

For Outstanding Scholastic Achievement in Semester 2: 2 High Distinctions, 3 Distinctions

## Merit Award (July 2021)

For Outstanding Scholastic Achievement in Semester 3: 2 High Distinctions, 2 Distinctions

#### Merit Award (Feb 2022)

For Outstanding Scholastic Achievement in Semester 4: 2 High Distinctions, 3 Distinctions

#### Beta Ambassador (July 2022)

Recognition from Microsoft for contributions and achievements in the Microsoft Learn Student Ambassadors program.

### Swinburne Emerging Leader (Oct 2022)

Recognition for contributions/achievements in Community, Sustainability, Campus, and Career Development.

#### Microsoft Learn Peer Mentor

Microsoft Student Programs / APAC / Nov 2022 - Jan 2023

Involvement as a mentor in a Microsoft Learn Student Ambassador mentorship program helping fellow students learn, lead, and empower their communities with technology.

- Strengthened communication skills through regular interactions with others.
- Excellent communication skills, both verbal and written.
- Exercised leadership capabilities by successfully motivating and inspiring others.
- Managed technical projects, utilizing established project tools and methodologies to bring projects to timely completion.
- Demonstrated respect, friendliness, and willingness to help wherever needed.

## PROJECTS

## **U-Mobile Cryptocurrency Prediction Software (FYP)**

- Worked on the backend of the project to develop a Multivariate-LSTM model to predict the price of several cryptocurrencies in a 60-hour rolling window.
   Also helped the frontend team integrate the backend and APIs to the application.
- Project used Django for frontend and TensorFlow and SQL for backend.
   Entire project was written in Python.
- Achieved a mean absolute percentage error of 15%

### Multivariate-LSTM for Hourly Bitcoin Prediction

- This project is an optimized version of the FYP and only includes the
  prediction model. It was created to showcase my capabilities in using Python,
  Scikit-Learn and TensorFlow. The original project cannot be shared due to a
  privacy agreement with U-Mobile.
- The model in this project only predicts Bitcoin prices using a 24-Hour rolling window.
- Optimizations used in this project are: Principal Component Analysis, Mutual Information Algorithm and Batch Shuffling.
- Achieved a Mean Absolute Percentage Error of 5.67%.
- <a href="https://github.com/Bernard-Joshua/Multivariate-LSTM-BTC">https://github.com/Bernard-Joshua/Multivariate-LSTM-BTC</a>

# CERTIFICATIONS

Applied Data Science with Python - Level 2
IBM / Dec 2022

Machine Learning with Python - Level 1 IBM / Dec 2022

## Convex Hull Algorithm in C++

- This project was a part of my Data Structures course. Used OOP methodology to implement the Graham Scan algorithm to determine the convex hull of a finite set of points in the plane with time complexity O(n log n).
- https://github.com/Bernard-Joshua/Convex-Hull-Algorithm

## **Robot Navigation with AI-Search Algorithms**

- This project was part of my Introduction to Artificial Intelligence course. It is based of the 1st to 3rd Chapters of Russell and Norvig's "Artificial Intelligence: A Modern Approach".
- Utilizes an OOP architecture and both Informed and Uniformed search algorithms.
- https://github.com/Bernard-Joshua/Robot-Navigation

## Virus Information Relational Database

- This project is part of my Data Fundamentals course. Uses SQL to create a relational database of viruses, locations they are active in, the types of strains they have, main modes of transmissions and the researchers who are actively researching them.
- https://github.com/Bernard-Joshua/Virus-Information-Database

## **Global Superstore Sales Analytics and Dashboard Creation**

- This project is a part of my Big Data Management course. Used Tableau to get key insights on the stores performance and build interactive dashboards with them.
- Dashboards utilized multiple different visualizations including map visualizations and also LOD calculations.
- https://github.com/Bernard-Joshua/Global-Supertore-Analytics-And-Dashboard